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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/613,301	07/03/2003	Hideki Kemmochi	P 0304672 H7966us	3932

7590 02/22/2007
Mr. Roger R. Wise
PILLSBURY MADISON & SUTRO LLP
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EXAMINER

AZAD, ABUL K

ART UNIT	PAPER NUMBER
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2626

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/22/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/613,301

Applicant(s)

KEMMOCHI, HIDEKI

Examiner

ABUL K. AZAD

Art Unit

2626

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-6 are pending in this Office Action.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kenmochi et al. (EP 1 220 195) in view of Yang (US 5,808,222).

As per claim 1, Kenmochi teaches, "a singing voice synthesizing apparatus", comprising:

"a singing voice information input device that inputs singing voice information for synthesizing singing voice" (Fig. 2B, element 21);

"a phoneme database that stores voice synthesis unit data" (Fig. 1, element 10);

"a selector that selects the voice synthesis unit data stored in the phoneme database in accordance with the singing voice information" (Fig. 1, element 10).

Kenmochi does not explicitly teach, "a timbre transformation parameter input device that inputs a timbre transformation parameter for transforming timbre and a singing voice synthesizer that generates a synthetic singing voice of which character is changed by transforming the voice synthesis unit data in accordance with the timbre transformation parameter". However, Yang teaches, "a timbre transformation parameter

input device that inputs a timbre transformation parameter for transforming timbre and a singing voice synthesizer that generates a synthetic singing voice of which character is changed by transforming the voice synthesis unit data in accordance with the timbre transformation parameter" (col. 7, line 58 to col. 8, line 36). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use Yang's teaching of a timbre transformation in the invention of Kenmochi because Yang teaches his invention provides optimal tradeoff between high timbre quality and low timbre vibrations (col. 8, lines 30-31).

As per claim 2, Kenmochi teaches, "further comprising a characteristic parameter output device that derives a characteristic parameter from the voice synthesis unit data selected by and outputs the derived characteristic parameter (Fig. 2B).

Kenmochi does not explicitly teach, "selector wherein the singing voice synthesizer corrects the characteristic parameter in accordance with the timbre transformation parameter". However, Yang teaches, "selector wherein the singing voice synthesizer corrects the characteristic parameter in accordance with the timbre transformation parameter" (col. 7, line 58 to col. 8, line 36). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use Yang's teaching of a timbre transformation in the invention of Kenmochi because Yang teaches his invention provides optimal tradeoff between high timbre quality and low timbre vibrations (col. 8, lines 30-31).

As per claim 3, Kenmochi does not explicitly teach, "wherein the singing voice synthesizer adjusts a spectrum envelope generated based on the selected voice

synthesis unit data in accordance with the timbre transformation parameter". However, Yang teaches, "wherein the singing voice synthesizer adjusts a spectrum envelope generated based on the selected voice synthesis unit data in accordance with the timbre transformation parameter" (col. 7, line 58 to col. 8, line 36). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use Yang's teaching of a timbre transformation in the invention of Kenmochi because Yang teaches his invention provides optimal tradeoff between high timbre quality and low timbre vibrations (col. 8, lines 30-31).

As per claim 4, Kenmochi does not explicitly teach, "wherein the timbre transformation parameter input device comprises a timbre transformation parameter adjuster that changes the timbre transformation parameter in a time axis". However, Yang teaches, "wherein the timbre transformation parameter input device comprises a timbre transformation parameter adjuster that changes the timbre transformation parameter in a time axis (col. 7, line 58 to col. 8, line 36). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use Yang's teaching of a timbre transformation in the invention of Kenmochi because Yang teaches his invention provides optimal tradeoff between high timbre quality and low timbre vibrations (col. 8, lines 30-31).

As per claims 5 and 6, they are interpreted and thus rejected for the same reasons set forth in the rejection of claim 1, because of their similar scope.

Art Unit: 2626

Contact Information

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Abul K. Azad** whose telephone number is **(571) 272-7599**. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Richemond Dorvil**, can be reached at **(571) 272-7602**.

Any response to this action should be mailed to:

Commissioner for Patents

P.O. Box 1450

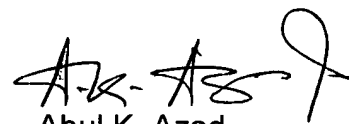
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Or faxed to: **(571) 273-8300**.

Hand-delivered responses should be brought to **401 Dulany Street, Alexandria, VA-22314** (Customer Service Window).

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

February 15, 2007


Abul K. Azad
Primary Examiner
Art Unit 2626